

What is claimed is:

1. A tomogram creating device, comprising:

means for creating data about a first structural tomogram, based on a first radiation detect signal detected in an unbreathed state of a body to be examined, with respect to radiation transmitted through the body;

means for creating data about a second structural tomogram, based on a second radiation detect signal detected in a breathed state of the body with respect to radiation transmitted through the body;

means for creating correction information of a tomogram, based on the first structural tomogram data and the second structural tomogram data; and

functional tomogram creating means for creating data about a functional tomogram, based on a third radiation detect signal detected in the breathed state of the body with respect to radiation emitted from the body due to a radioactive medical agent, and the correction information.

2. The tomogram creating device according to claim 1, wherein said functional tomogram creating means has means for creating data about a first functional tomogram, based on the third radiation detect signal, and means for creating data about a second functional tomogram obtained by correcting the first functional tomogram data by the correction information.

3. The tomogram creating device according to claim 1, wherein said functional tomogram creating means includes means for creating voxel information in a body, based on the third radiation detect signal, and means for creating data about the functional tomogram, based on the voxel information corrected by the correction information.

4. A tomogram creating method, comprising the following steps:

a first structural tomogram creating step for creating data about a first structural tomogram, based on a first radiation detect signal detected in an unbreathed state of a body to be examined, with respect to radiation transmitted through the body;

a second structural tomogram creating step for creating data about a second structural tomogram, based on a second radiation detect signal detected in a breathed state of the body with respect to radiation transmitted through the body;

a correction information creating step for creating correction information of a tomogram, based on the first structural tomogram data and the second structural tomogram data; and

a functional tomogram creating step for creating data about a functional tomogram, based on a third radiation detect signal detected in the breathed state of the body with respect to radiation emitted from the body due to a

radioactive medical agent, and the correction information.

5. The tomogram creating method according to claim 4, wherein the first radiation detect signal and the second radiation detect signal are detect signals outputted from discrete radiation examining apparatuses each of which detects the radiation emitted from a radiation source and transmitted through the body.

6. The tomogram creating method according to claim 4, wherein the second radiation detect signal and the third radiation detect signal are detect signals outputted from radiation detectors of radiation examining apparatuses used in both a second examination for irradiating the body with first radiation from a radiation source and detecting the same, and a third examination for detecting second radiation emitted from the body due to a radioactive medical agent.

7. The tomogram creating method according to claim 6, wherein the first radiation detect signal is a detect signal outputted from the radiation detector of the radiation examining apparatus used in a first examination for irradiating the body in an unbreathed state with second radiation from the radiation source and detecting the same.

8. The tomogram creating method according to any of claims 4 to 7, wherein the functional tomogram creating step has a step for creating data about a first functional tomogram, based on the third radiation detect signal, and a

step for creating data about a second functional tomogram obtained by correcting the first functional tomogram data by the correction information.

9. The tomogram creating method according to any of claims 4 to 7, wherein the functional tomogram creating step includes a step for creating voxel information in a body, based on the third radiation detect signal, and a step for creating data about the functional tomogram, based on the voxel information corrected by the correction information.

10. A radiation examining apparatus, comprising:

a radiation source device for emitting radiation;

a plurality of radiation detectors for respectively outputting both a first radiation detect signal corresponding to a detected signal of the radiation transmitted through a body to be examined, and a second radiation detect signal corresponding to a detected signal of radiation emitted from the body due to a radioactive medical agent; and

a tomogram creating device;

said tomogram creating device including,

means for creating data about a first structural tomogram, based on a third radiation detect signal detected in an unbreathed state of a body to be examined, with respect to radiation transmitted through the body;

means for creating data about a second structural tomogram, based on the first radiation detect signal detected

by the corresponding radiation detector in a breathed state of the body;

means for creating correction information of a tomogram, based on the first structural tomogram data and the second structural tomogram data; and

functional tomogram creating means for creating data about a functional tomogram, based on the second radiation detect signal detected by the radiation detector in the breathed state of the body, and the correction information.

11. The radiation examining apparatus according to claim 10, including a control device for alternately executing the emission and stop of the radiation from the radiation source device and executing the emission of the radiation for a set time.

12. A radiation examining apparatus, comprising:

an examined-body holding device having a bed movable in a longitudinal direction thereof with a body to be examined being laid thereon;

an imaging device including,

a radiation detector ring body surrounding a region in which the bed is inserted and including a plurality of radiation detectors, an X-ray source for irradiating the body with X rays, and an X-ray source moving device for shifting the X-ray source in a circumferential direction of

the radiation detector ring body;

said radiation detectors for respectively outputting both a first radiation detect signal corresponding to a detected signal of the X rays transmitted through the body, and a second radiation detect signal corresponding to a detected signal of γ rays emitted from the body; and

a tomogram creating device for creating data about a first structural tomogram, based on a third radiation detect signal detected in an unbreathed state of the body with respect to radiation transmitted through the body, creating data about a second structural tomogram, based on the first radiation detect signal detected by the corresponding radiation detector in a breathed state of the body, creating correction information about a tomogram, based on the first structural tomogram data and the second structural tomogram data, and creating data about a functional tomogram, based on the second radiation detect signal detected by the radiation detector in the breathed state of the body, and the correction information.

13. The radiation examining apparatus according to claim 12, including an X-ray source control device for alternately executing the emission and stop of the X rays from the X-ray source device and executing the emission of the X rays for a set time.

14. The radiation examining apparatus according to

claim 13, wherein signal processors each having a first signal processing device for processing the first detect signal, a second signal processing device for processing the second detect signal, and a switching device for transferring the first detect signal outputted from the corresponding radiation detector to the first signal processing device and transmitting the second detect signal outputted from the corresponding radiation detector to the second signal processing device are provided every said radiation detectors,

further including a switching control device for controlling the switching device so as to transfer the first detect signal outputted from the radiation detector selected according to the position of the X-ray source moving device in a circumferential direction of the radiation detector ring body to the first signal processing device.

15. The radiation examining apparatus according to claims 10 to 14, wherein each of the radiation detectors is a semiconductor radiation detector.

16. The radiation examining apparatus according to claims 10 to 15, wherein the third radiation detect signal is a detected signal of the X rays transmitted through the body, which is detected by the radiation detector in the unbreathed state of the body.